

REMARKS

This is intended as a full and complete response to the Office Action dated July 29, 2005, having a shortened statutory period for response set to expire on October 29, 2005. Please reconsider the claims pending in the application for reasons discussed below.

Specification

The title is objected by the Examiner. In response, Applicants have replaced the title as suggested by the Examiner.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-3, 5 and 8 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Kapoor*, U.S. Patent No. 5,864,172. In response, Applicants respectfully traverse the rejection. Additionally, Applicants have canceled claims 2 and 3 without prejudice.

Claim 1 as amended recites the limitation that “the water soluble compound is boron oxide provided by an organoboron compound introduced while forming the silicon based film.” In contrast, *Kapoor* teaches a precursor of germane to form a composite comprising germanium oxide. Therefore, *Kapoor* fails to disclose or suggest each and every limitation in claim 1 and does not support rejection of claim 1 or any claim dependent thereon. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of claims 1, 5 and 8.

Claims 1-3, 6-8, 10 and 17-19 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Gates*, U.S. Patent No. 6,780,499. In response, Applicants respectfully traverse the rejection. Additionally, Applicants have canceled claims 2, 3 and 6 without prejudice.

Claim 1 states that “the water soluble compound is boron oxide provided by an organoboron compound introduced while forming the silicon based film.” However, *Gates* does not mention use of boron oxide provided by an organoboron compound. Therefore, *Gates* fails to disclose or suggest each and every limitation in claim 1 and does not support rejection of claim 1 or any claim dependent thereon. Accordingly,

Applicants respectfully request withdrawal of the rejection and allowance of claims 1, 7, 8 and 10.

Also, claim 17 includes the limitation of “doping of controlled size nano phase compounds in a silicon based film using chemical vapor deposition (CVD), wherein the nano phase compounds are boron oxide (B₂O₃).” By contrast, *Gates* does not deposit via chemical vapor deposition and does not disclose use of boron oxide. Therefore, *Gates* fails to disclose or suggest each and every limitation in claim 17 and does not support rejection of claim 17 or any claim dependent thereon. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of claims 17-19.

Claim Rejections Under 35 U.S.C. § 103

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gates* in view of *Swanson*, U.S. Patent No. 5,976,478. In response, Applicants have canceled claim 4 without prejudice.

Claims 9 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gates* in view of *Sony*, JP 10256363 (Abstract). In response, Applicants respectfully traverse the rejection.

As stated above, *Gates* fails to teach or suggest each and every element of claims 1 and 17 from which claims 9 and 20 respectively depend. Applicants submit that *Sony* fails to overcome these deficiencies in *Gates*. Specifically, *Sony* teaches that a porous dielectric film is irradiated by electron beam without otherwise providing any process for forming the dielectric film. Therefore, *Gates* in view of *Sony* fails to teach, show or suggest each and every limitation in claim 9 or claim 20. Accordingly, Applicants submit that claims 9 and 20 are allowable and respectfully request withdrawal of the rejection and allowance thereof.

Claim 11 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Gates*. In response, Applicants respectfully traverse the rejection.

Claim 11 depends from allowable claim 1 as discussed above. Therefore, Applicants submit that claim 11 is patentable over the reference. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of claim 11.

Claims 12, 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kapoor* in view of *Maeda*, U.S. Patent No. 5,324,539. In response, Applicants respectfully traverse the rejection.

Maeda teaches a thin glass film where germanium oxide is left in the film and not removed in order to provide certain properties listed at column 4, lines 34-51. While *Maeda* teaches that organogermanium can be used instead of germane in this particular application where it is desired to leave the germanium oxide in the film, there is no indication in either *Kapoor* or *Maeda* that organogermanium provides an acceptable substitute for germane when the germanium oxide is removed. Therefore, *Kapoor* in view of *Maeda* fails to teach, show or suggest doping of nano phase compounds in a silicon based film using chemical vapor deposition precursors selected from at least one member of the group consisting of organogermanium compounds, organoboron compounds, germanic acid and boric acid, and removing at least a portion of the nano phase compounds dispersed in the silicon based film, as recited in claim 12. Accordingly, Applicants submit that claim 12 and all claims dependent thereon are patentable and respectfully request withdrawal of the rejection and allowance of claims 12, 14 and 15.

Claim 13 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kapoor* and *Maeda* in view of *Gates*.

As stated above regarding claim 12, *Kapoor* and *Maeda* fail to teach or suggest each and every element of claim 12 from which claim 13 depends. Applicants submit that *Gates* fails to overcome these deficiencies in *Kapoor* and *Maeda*. For example, *Gates* cannot disclose “using chemical vapor deposition (CVD) precursors selected from...,” as recited in claim 12 since *Gates* does not deposit via chemical vapor deposition. Therefore, *Kapoor* and *Maeda* in view of *Gates* fails to teach, show or suggest each and every limitation in claim 13. Accordingly, Applicants submit that claim 13 is allowable and respectfully request withdrawal of the rejection and allowance thereof.

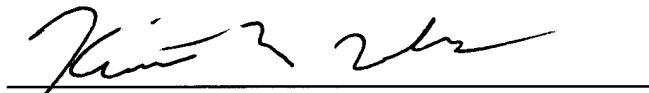
Further, claim 16 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kapoor* and *Maeda* in view of *Sony*.

As stated above regarding claim 12, *Kapoor* and *Maeda* fail to teach or suggest each and every element of claim 12 from which claim 16 depends. Applicants submit that *Sony* fails to overcome these deficiencies in *Kapoor* and *Maeda*. Specifically, *Sony* teaches that a porous dielectric film is irradiated by electron beam without otherwise providing any process for forming the dielectric film. Therefore, *Kapoor* and *Maeda* in view of *Sony* fails to teach, show or suggest each and every limitation in claim 16. Accordingly, Applicants submit that claim 16 is allowable and respectfully request withdrawal of the rejection and allowance thereof.

Conclusion

The references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,



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